Scientific Research Publishing

Open Journal of Pediatrics, 2019, 9, 192-198
http://www.scirp.org/journal/ojped
ISSN Online: 2160-8776
ISSN Print: 2160-8741

Relationship between Early Breastfeeding, Exclusive Breastfeeding and Continuation of Breastfeeding until 24 Months in Parakou in 2016

Joseph Agossou[1,2*], Alphonse Noudamadjo[1,2], Julien Didier Adédémy[1,2], Mèdétinmè Gérard Kpanidja[1,2], Falilatou Agbeille Mohamed[1,2], Cocou Pamphile Boko[3], Zinsou Rodrigue Ahodègnon[3]

[1]Mother & Child Department of Faculty of Medicine, University of Parakou, Parakou, Benin
[2]Pediatric Unit of the Borgou/Alibori Regional University Teaching Hospital, Parakou, Benin
[3]National School of Higher Technicians in Public Health and Epidemiology, University of Parakou, Parakou, Benin
Email: *agossoujoseph@gmail.com

How to cite this paper: Agossou, J., Noudamadjo, A., Adédémy, J.D., Kpanidja, M.G., Mohamed, F.A., Boko, C.P., Ahodègnon, Z.R. (2019) Relationship between Early Breastfeeding, Exclusive Breastfeeding and Continuation of Breastfeeding until 24 Months in Parakou in 2016. *Open Journal of Pediatrics*, **9**, 192-198.
https://doi.org/10.4236/ojped.2019.93019

Received: May 5, 2019
Accepted: July 9, 2019
Published: July 12, 2019

Abstract

Introduction: Early breastfeeding is recommended by the WHO as one of the essential practices for child nutrition. **Objective:** To identify the relationship between early breastfeeding, exclusive breastfeeding (EBF) and continuation of breastfeeding up to 24 months of age. **Patients and Methods:** This research is a cross-sectional, descriptive and analytical study conducted in the District of Parakou (Benin) in November 2016. Sampling was probabilistic and used the WHO cluster sampling technique. Children aged 6 to 24 months and their mothers were included. The main variables investigated during the study were related to practices of early breastfeeding, EBF and continuation of breastfeeding until 24 months of age. The data collected through direct interview were entered and processed using the Epi-info 7.2 software. Chi-squared test was used to compare proportions; the differences existing between the proportions were considered as significant if $p < 0.05$. **Findings:** Among the 420 children included, the prevalence of EBF was 26.67%. EBF and continuation of breastfeeding up to 24 months were statistically related to early breastfeeding with p values estimated at 0.014 and 0.047, respectively. **Conclusion:** Improving and enhancing the performance of breastfeeding practice should be possible by promoting early breastfeeding.

Keywords

Early Breastfeeding, Exclusive Breastfeeding, Benin

1. Introduction

Breastfeeding is the best way of feeding newborns and infants because of the cognitive benefits for the infant and health benefits for the infant and their mother [1] [2]. Although the WHO has strong recommendations and despite the benefits of exclusive breastfeeding, many countries have been slow to address this topic. According to an analysis by the Global Breastfeeding Collective (GBC), only 40% of children less than 6 months of age are exclusively breastfed [3]. If for many people the concept of EBF until 6 months is a matter of course, it still faces many sociocultural barriers, especially in developing countries [4]. In West and Central Africa, the EBF ratio is lower than in any other area of the world; only 20% of children under 6 months of age are exclusively breastfed [5]. This study aims to identify the relationship between early breastfeeding, EBF and continuation of breastfeeding until 24 months of age.

2. Patients and Methods

This research work was carried out in the District of Parakou (Benin) in November 2016. The population targeted in this cross-sectional and analytical study consisted of all children aged 6 to 24 months and their mothers. More specifically, this study included all children aged 6 to 24 months living in the District of Parakou since at least 6 months of age and whose mothers volunteered to participate in the survey. The children of mothers who could not breastfeed for health reasons (according to their statement) were excluded. The minimum size of the child population to be investigated has been estimated at 406 statistical units using the Schwartz formula [6]. Cluster sampling was used in compliance with the WHO recommendations. Clusters were selected based on a probability proportional to the population size of the district areas. The data gathering technique used was a "face to face" interview by means of a structured questionnaire administered to the mothers of the included children. The main variables studied were related to early breastfeeding, EBF and continuation of breastfeeding until 24 months. The other variables studied were the sociodemographic characteristics of children and their mothers.

Early breastfeeding was defined as the fact that a newborn is fed with his or her mother's breasts within the first hour after birth. EBF was defined as the nutrition of newborns and infants only with his or her mother's breast milk during the first 6 months of life without adding water, other fluid or food except prescribed medicines. The duration adopted for the continuation of breastfeeding was 24 months [7] [8].

The data collected were entered and processed using the Epi-Info 7.2 software. The measures of central tendency of the quantitative variables were described by calculating the averages and their standard deviations. The ratios of qualitative variables were also determined. The Chi^2 test was used to compare proportions, and differences were considered significant with a p-value < 0.05.

3. Results

After completion of the survey, 420 infants born from 420 different mothers who met the selection criteria were included in the study.

3.1. Sociodemographic Characteristics of Children and Their Mothers

The children's mean age was 9.04 ± 4.76 months, and the predominant age group (68.78%) was 6 to 12 months. The sex ratio was 1.03.

For the mothers, the mean age was 26.57 ± 6.93 years. The predominant age group consisted of mothers aged 15 to 30 years (71.90%). The mothers were uneducated in 50.23% of cases. The mothers had a primary school certificate, junior secondary school certificate or senior secondary school/high school certificate or more in 26.43%, 14.05% and 9.29% of cases, respectively.

3.2. Prevalence of Early Breastfeeding, EBF and Continuation of Breastfeeding until 24 Months

The prevalence of early breastfeeding was 32.62%, the prevalence of EBF was 26.67%, and the prevalence of continuation of breastfeeding until 24 months was 6.19%.

Table 1 shows the distribution of children aged 6 to 24 months investigated as respondents according to the prevalence of breastfeeding practices in Parakou in 2016.

3.3. Relationships between Early Breastfeeding, EBF and Continuation of Breastfeeding until 24 Months

Exclusive breastfeeding (EBF) was statistically associated with early breastfeeding with p = 0.014. Continuation of breastfeeding until 24 months of age was

Table 1. Distribution of children aged 6 to 24 according to early breastfeeding, EBF and continuation of breastfeeding until 24 months in Parakou in 2016 (n = 420).

	Population size (n = 420)	(%)
Early breastfeeding		
Yes	137	32.62
No	283	67.38
EBF		
Yes	112	26.67
No	308	73.33
Continuation of breastfeeding		
Yes	26	06.19
No	394	93.81

also statistically associated with early breastfeeding (p = 0.0474). Continuation of breastfeeding until 24 months was not statistically associated with exclusive breastfeeding (EBF) (p = 0.6252).

Table 2 and Table 3 indicate the relationships between early breastfeeding, EBF and continuation of breastfeeding until 24 months.

4. Discussion

This study was performed in children aged 6 to 24 months. This age group might be a source of information bias for the determination of EBF prevalence due to forgetfulness and neglect. The farther we move away from the age of six months, the more mothers there may be who might have difficulty remembering information related to the practice of EBF. However, the cluster sampling technique helped to limit selection bias and ensure the representativeness of our sample. The study had the merit of addressing a health problem that continues to expand within the communities.

4.1. Prevalence of Early Breastfeeding, EBF and Continuation of Breastfeeding until 6 Months

The prevalence of early breastfeeding estimated at 32.62% is higher than that reported by Boinémé I. *et al.* in 2010 in Tunisia (12%) and that of the 4th Population

Table 2. Relationship between early breastfeeding, EBF and continuation of breastfeeding until 24 months among children aged 6 to 24 months in Parakou in 2016.

	Early breastfeeding							
		Yes		No				
	Total	n	%	n	%	RP	$CI_{95\%}$	*p*
EBF								0.014
Yes	137	47	34.31	90	65.69	1		
No	283	65	22.97	218	77.03	0.67	[0.48 - 0.91]	
Continuation of breastfeeding until 24 months								0.0474
Yes	26	13	50.00	13	50.00	1		
No	394	123	31.22	271	68.78	0.62	[0.41 - 0.94]	

Table 3. Relationship between EBF and continuation of breastfeeding until 24 months among children aged 6 to 24 months in Parakou in 2016.

		EBF						
	Total	Yes		No		RP	$CI_{95\%}$	*p*
		N	%	n	%			
Continuation of breastfeeding up to 24 months								0.6252
Yes	26	08	30.77	18	69.23	1		
No	394	104	26.40	290	73.60	0.86	[0.47 - 1.56]	

and Health Survey in Benin (EDSB-MICS 2011) (19.60%) [9] [10]. Our reported result is lower than the rate (53.5%) reported by Djadou *et al.* in Togo in 2018 [11]. Compared to Togo, our low prevalence might be due to the deficit of knowledge and practices of health professionals in early breastfeeding because the birth rate in health facilities is estimated at 84% [12].

The prevalence of exclusive breastfeeding (EBF) was 26.67%. This prevalence is higher than the prevalence reported by Adédémy *et al.* in 2013 in Benin (14.71%) and similar to that reported by Chiabi *et al.* in 2012 in Cameroon and Niguse *et al.* in 2015 in Ethiopia (26.40%) [13] [14] [15]. However, our prevalence is lower than the rate of 72.2% noted by Djadou *et al.* in Togo in 2018 [11]. This prevalence is low because, in view of free provision, easy accessibility and the benefits of breastfeeding in a poverty situation, the practice of EBF should be feasible at 100%.

This poor practice of EBF might be because mothers incorrectly think a child who is EBF is not full. Moreover, the negative influence of mothers-in-law and other senior women taken as people holding good practices in childcare is also a factor that is likely to explain the low rate.

The prevalence of continuation of breastfeeding until 24 months was 6.19%. This prevalence is lower than the prevalence reported in the EDSB-MICS 2014 (45.50%) and EDS-MICS-IV (52.60%) [10] [16]. This difference existing between these rates might be due to the questionnaire formulation during interview and to the belief according to which breastfeeding is incompatible with pregnancy due to poor quality of milk. In addition, some ethnic groups believe that breastfeeding is an obstacle to sexual intercourse.

4.2. Relationships between Early Breastfeeding, EBF and Continuation of Breastfeeding until 24 Months

Early breastfeeding has a positive impact on exclusive breastfeeding (EBF) and continuation of breastfeeding until 24 months with $p = 0.014$ and $p = 0.0474$, respectively. In contrast, EBF does not influence the continuation of breastfeeding ($p = 0.6252$). These results explain the critical role that early breastfeeding plays in breastfeeding. The early breastfeeding process and communication of the benefits of breastfeeding have a positive impact on mothers' engagement in the practice of breastfeeding. Improving performances in the practice of breastfeeding should be possible by considering cultural and anthropological considerations specific to the community and by promoting early breastfeeding. Although this study has been randomized to population in Parakou's District alone, the results cannot be inferred for all children aged 0 - 24 months in Benin. Only multicenter studies can help to understand the reality of breastfeeding in our country.

5. Conclusion

Both the continuation of breastfeeding until 24 months and the practice of ex-

clusive breastfeeding (EBF) are influenced by early breastfeeding of the child. As a result, early breastfeeding might be considered an important strategy for promoting breastfeeding and thereby child health.

Ethical and Professional Considerations

Recruitment was anonymous. The women included in the study were recruited only after their prior consent. The authors were granted an authorization by the relevant authorities of the District before starting this work. The ethics committee of the Faculty of Medicine of the University of Parakou has approved it.

Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

References

[1] World Health Organization (2017) Babies and Mothers Worldwide Failed by Lack of Investment in Breastfeeding. Geneva, 54 p.

[2] World Health Organization (2013) Breastfeeding: Only 1 in 5 Countries Fully Implement WHO's Infant Formula Code. 2nd Edition, Geneva, 47 p.

[3] World Health Organization (2017) Report on Breastfeeding: Only 23 Countries Have Exclusive Breastfeeding Rates above 60 Percent. 3rd Edition, Geneva, 65 p.

[4] Traoré, M., Sangho, H., Diagne, M.C., Faye, A., Sidibé, A., Koné, K., *et al.* (2014) Factors Associated with Exclusive Breastfeeding among Mothers of Children Aged 24 Months in Bamako. *Santé Publique*, **26**, 259-265. https://doi.org/10.3917/spub.138.0259

[5] Dillon, J. and Imbert, P. (2003) Breastfeeding in Developing Countries : Evolution and Current Recommendations. *Médecine Tropicale*, **63**, 400-406.

[6] Schwartz, B., Woods, T., Liyanage, W. and Smith, D. (1991) A Simplified General Method for Cluster-Sample Surveys of Health in Developing Countries. *World Health Statistics Quarterly*, **44**, 98-106.

[7] World Health Organization (2018) Indicators for Assessing Infant and Young Child Feeding Practices: Conclusions of a Consensus Meeting Held 6-8 November 2007 in Washington DC, USA, 2008. http://apps.who.int/iris/bitstream/handle/10665/43895/9789241596664_eng.pdf;jsessionid=889A5082C6CBA350191C30D1C3E2F3B7?sequence=1

[8] WHO/UNICEF (2003) Global Strategy on Infant and Young Child Feeding. World Health Organization, Geneva. http://apps.who.int/iris/bitstream/handle/10665/42590/9241562218.pdf;jsessionid=07851B74C5C1B6B8D7187C7692C6E7DB?sequence=1

[9] Boinémé, I., ElMhamdi, S., Sriha, A., Bouslah, A. and Soltani, M. (2010) Knowledge and Practices of Breastfeeding by Women from the Monastir Region (Tunisia). *Eastern Mediteranean Health Journal*, **16**, 879-885. https://doi.org/10.26719/2010.16.8.879

[10] National Institute of Statistics and Economic Analysis (INSAE) and ICF International, Calverton Maryland (2013) Population and Health Multiple-Indicator Cluster Survey of Benin (EDS-MICS-IV) 2011-2012. Preliminary Report, 34 p.

[11] Djadou, K.E., Agbeko, F., Guédéhoussou, T., Dizewé, K., Azoumah, K.D. and Agbèrè, A.D. (2018) Assessment of Exclusive Breastfeeding among Children Aged 0 to 6 Months in the District of Tchaoudjo (Togo). *Journal Africain de Pédiatrie et de Génétique Médicale*, **4**, 30-36.

[12] National Institute of Statistics and Economic Analysis (INSAE), ICF (2018) Population and Health Survey in Benin, 2017-2018: Key Indicators. INSAE and ICF, Cotonou, Rockville.

[13] Adédémy, J.D., Bagnan-Tossa, L., Noudamadjo, A., Agossou, J. and Hounhakou, P. (2014) Frequency and Factors Associated with the Practice of Exclusive Breastfeeding from 0 to 6 Months in the Lagoon Mother and Child Hospital (Homel) of Cotonou. *Journal de la Société de Biologie Clinique du Bénin*, **21**, 38-44.

[14] Chiabi, A., Mah, E., *et al.* (2014) Practice of Exclusive Breastfeeding by Mothers during Vaccine and Pediatric Consultation in the Gyneco-Obstetric and Pediatric Hospital of Yaoundé. *Health Sciences and Diseases*, **15**, 1-6.

[15] Niguse, T., Frehiwot, H., Dinu, A. and Eyerus, D. (2016) Knowledge, Attitude and Practice towards Exclusive Breastfeeding among Lactating Mothers in Mizan Aman Town, Southwestern Ethiopia: Descriptive Cross-Sectional Study. *International Breastfeeding Journal*, **11**, 3. https://doi.org/10.1186/s13006-016-0062-0

[16] National Institute of Statistics and Economic Analysis (INSAE), Multiple-Indicator Cluster Survey (MICS) (2014) Key Findings. National Institute of Statistics and Economic Analysis, Cotonou.